## A REPLACEMENT NAME FOR PAROTOSAURUS JAEKEL (AMPHIBIA: LABYRINTHODONTIA)

by R. L. PATON

In 1889 Fraas recognized two different genera of capitosaurid labyrinthodont amphibian. Those in which the otic notch was 'closed' (i.e. lay within the skull roof and was therefore completely surrounded by bone) he placed in a new genus *Cyclotosaurus*; these specimens were largely confined to Upper Triassic deposits. Those in which the otic notch was 'open' (i.e. lay on the edge of the skull roof and was therefore incomplete posteriorly), Fraas left in the genus *Capitosaurus*; these were all from the Lower or Middle Trias.

This simple picture became complicated when Jaekel (1922) pointed out that the holotype and only specimen of the type species of *Capitosaurus*, *C. arenaceus* Münster, 1836, was from the Upper Trias (of Benk, near Bayreuth) and also lacked the crucial, diagnostic, otic notch region. It is therefore what would today be called a *nomen vanum* (Simpson 1945). To this taxonomic problem, Jaekel suggested a solution which has since been universally accepted: the genus *Capitosaurus* was to be regarded as indeterminate, and this name was to be used only for the single species *C. arenaceus*, while all other species formerly included in the genus *Capitosaurus* were to be placed in a new genus, for which Jaekel suggested the name *Parotosaurus*. Jaekel (1922) designated *P. nasutus* (Meyer) as the type species of this genus, and Welles and Cosgriff (1965) chose as the lectotype of the species the first skull described and figured by Meyer (1858, p. 222, pl. 24). The horizon of the lectotype is Middle Bunter (Lower Trias) and it comes from a quarry in the Hauptbuntsandstein near Bernburg.

Unfortunately, it now appears that *Parotosaurus* had already been used by Boulenger in 1914 as the name of a scincid lizard. Though *Parotosaurus* Boulenger 1914 may be a junior synonym for another genus of lizard (Mittleman 1952; Romer 1956), it nevertheless retains precedence over *Parotosaurus* Jaekel 1922 (see Article 17 (1) of the International Code of Zoological Nomenclature, Stoll 1964), and a new name must be found for the genus of capitosaur.

It was felt that a suitable replacement name would be formed by retaining the ending -otosaurus and merely changing the prefix to indicate the relatively primitive condition of the otic notch. The name Archotosaurus has therefore been chosen to replace the now invalid Parotosaurus, the type species of the genus being A. nasutus (Meyer).

According to Article 40 of the International Code of Zoological Nomenclature, a family name is to be retained even if the nominal type genus is rejected as a junior synonym. As pointed out by Welles and Cosgriff (1965), an extension of this would

lead to the retention of a family name even though the nominal type genus were a nomen vanum. The family containing the genera Archotosaurus and Cyclotosaurus can therefore retain the name Capitosauridae.

Acknowledgements. I wish to thank Dr. R. Zweifel (American Museum of Natural History) who discovered the synonym described above, and Drs. E. S. Gaffney (A.M.N.H.) and Anne A. Warren (La Trobe University) who told me of it. I am also very grateful to Dr. A. D. Walker (University of Newcastle upon Tyne) for reading and commenting upon the manuscript.

## REFERENCES

BOULENGER, G. A. 1914. An annotated list of the batrachians and reptiles collected by the British Ornithologists' Union Expedition, and the Wollaston Expedition in Dutch New Guinea. *Trans. zool. Soc. Lond.* 20, 247-274.

FRAAS, E. 1889. Die Labyrinthodonten der schwäbischen Trias. Palaeontographica, 36, 1-158.

JAEKEL, O. 1922. Neues über Hemispondyla. Paläont. Z. 5, 1–25.

MEYER, H. VON. 1858. Labyrinthodonten aus dem bunten Sandstein von Bernburg. *Palaeontographica*, **6**, 221–245.

MITTLEMAN, M. B. 1952. A generic synopsis of the lizards of the subfamily Lygosominae. *Smithson. misc. Collns*, 117 (17), 1–35.

MÜNSTER, G. VON. 1836. Letter on various fossils. Neues Jb. Min. Geog. Geol. 1836, 580-583.

ROMER, A. S. 1956. Osteology of the reptiles. Chicago University Press, 772 pp.

SIMPSON, G. G. 1945. The principles of classification and a classification of mammals. *Bull. Am. Mus. nat. Hist.* 85, 1–350.

STOLL, N. R. et al. (eds.). 1964. International Code of Zoological Nomenclature adopted by the XV International Congress of Zoology. London, 176 pp.

WELLES, S. P. and COSGRIFF, J. 1965. A revision of the labyrinthodont family Capitosauridae. *Univ. Calif. Publs. geol. Sci.* **54**, 1–148.

ROBERTA L. PATON

Department of Geology
Royal Scottish Museum
Chambers Street
Edinburgh EH1 1JF

Typescript received 18 August 1975 Revised typescript received 13 October 1975